

A31
CONT.

are prevented by controlling the contact temperature between the photosensitive member and the intermediate image-transfer member (medium) to be in the range of 15 to 60° C. A kinetic frictional deviation (a standard deviation of a kinetic frictional force) is controlled to be less than the average value of the kinetic frictional force. By suppressing the fine vibration, deviation in image transfer is prevented. In addition, toner melt adhesion and foreign matter deposition is prevented, whereby image blurring is prevented.

IN THE CLAIMS:

Please cancel Claims 15 through 23 without prejudice to or disclaimer of the subject matter recited therein.

Please amend Claims 1 through 13, and 14 to read, as follows. A marked-up copy of Claims 1 through 13, and 14, showing the amendments made thereto, is attached. Note that all the claims currently pending in this application, including those not presently being amended, have been reproduced below for the Examiner's convenience.

SUB62

1. (Amended) An image-forming process for use in an electrophotographic system employing an image forming apparatus equipped with a photosensitive member including a photoconductive layer composed of a silicon-based non-monocrystalline material and a surface layer composed of a non-monocrystalline material formed on a peripheral face of a substantially-cylindrical electroconductive substrate, and a substantially-cylindrical intermediate image transfer member in contact with a surface layer of the photosensitive member, and rotating the photosensitive member

and the intermediate image-transfer member at a prescribed relative speed, said image-forming process comprising:

an electrifying step of electrifying the surface layer of the photosensitive member;

a latent image-forming step of forming an electrostatic latent image by projection of light onto the surface layer electrified in said electrifying step;

a developing step for forming a toner image by deposition of a toner on the surface layer bearing the electrostatic latent image formed by said latent image-forming step;

an image-transferring step for transferring the toner image formed in said developing step onto the intermediate image-transfer member; and

repeating said electrifying step, said latent image-forming step, said developing step, and said transferring step a plurality of times to form a plurality of toner images in superposition on the intermediate image-transfer member; and

a transferring step of transferring the toner images formed in superposition on the intermediate image-transfer member onto a recording sheet,

wherein the photosensitive member and the intermediate image-transfer member are brought into contact at a contact face and at a contact temperature in the range of 15°C to 60°C at the prescribed relative speed of the photosensitive member to the intermediate image-transfer member to achieve a kinetic frictional deviation (a standard deviation of a kinetic frictional force) less than an average value of the kinetic frictional force.

A32
cont.

2. (Amended) The image-forming process according to claim 1, wherein a kinetic frictional deviation factor is not higher than 0.1, wherein the kinetic frictional deviation factor is a rate of change of the kinetic frictional deviation per unit length in a length direction of the contact face with a contacting linear pressure, and
wherein the contacting linear pressure is defined as a force applied to contact the photosensitive member with the intermediate image-transfer member per unit length in the length direction of the contact face.

3. (Amended) The image-forming process according to claim 2, wherein a range of a variation of the kinetic frictional deviation factor is not more than 0.02 for a change of the contact temperature in the range of 15°C to 60°C.

A32
Cont.

4. (Amended) The image-forming process according to claim 1, wherein the surface layer is composed of a non-monocrystalline material based on at least one of silicon and carbon, and
wherein a range of variation of a kinetic frictional deviation factor is not more than 0.01 for a change of the contact temperature in the range of 15°C to 60°C.

5. (Amended) The image-forming process according to claim 1, wherein a rate of change of a dark portion electrifying ability to a change of temperature of a surface of the photosensitive member is within $\pm 2\%/\text{°C}$.

6. (Amended) The image-forming process according to claim 5, wherein a characteristic energy in an exponential energy distribution of a tail level of a valence band is in the range of 50 to 70 meV.

7. (Amended) The image-forming process according to claim 1, wherein a center-line average roughness according to JIS B0601-1994 of the surface layer of the photosensitive member is in the range of 0.01 to 0.9 μm , and

wherein the average inclination Δa is in the range of 0.001 to 0.06, as defined by the following equation:

$$\Delta a = \frac{1}{\ell} \left| \frac{dy}{dx} \right|_0$$

A32
Cont.

where y is a height in a Y direction at a point x of a curve extending in an X direction.

8. (Amended) An image-forming process for an electrophotographic system employing an image-forming apparatus equipped with a plurality of photosensitive members including, respectively, a photoconductive layer composed of a silicon-based non-monocrystalline material and a surface layer composed of a non-monocrystalline material formed on a peripheral face of a substantially-cylindrical electroconductive substrate, and an image-transferring belt for holding and delivering a recording sheet with successive contact, respectively, with the surfaces of the plurality of photosensitive

members, and moving the plurality of photosensitive members and the recording sheet at a prescribed relative speed, the image forming process comprising:

an electrifying step of electrifying a surface layer of one of the photosensitive members;

a latent image-forming step of forming an electrostatic latent image by projection of light onto the surface layer electrified in said electrifying step;

a developing step for forming a toner image by deposition of a toner on the surface layer bearing the electrostatic latent image formed in said latent image-forming step;

an image-transferring step for transferring the toner image formed in said developing step onto the recording sheet; and

repeating said electrifying step, said latent image-forming step, said developing step, and said image-transferring step for each of a remaining plurality of photosensitive members to form a plurality of toner images in superposition on the recording sheet,

wherein the photosensitive member and the recording sheet are brought into contact at a contact face and at a contact temperature in the range of 15°C to 60°C at the prescribed relative speed of the photosensitive member to the recording sheet to achieve a kinetic frictional deviation (a standard deviation of a kinetic frictional force) less than an average value of the kinetic frictional force.

Argn
Cont

9. (Amended) The image-forming process according to claim 8, wherein a kinetic frictional deviation factor is not higher than 0.1, where a kinetic frictional deviation

factor is a rate of a change of a ratio of the kinetic frictional deviation per unit length in a length direction of the contact face with a contacting linear pressure,

wherein the contacting linear pressure is defined as a force applied to contact the photosensitive member with the recording sheet per unit length in the length direction of the contact face.

10. (Amended) The image-forming process according to claim 9, wherein a range of variation of the kinetic frictional deviation factor is not more than 0.02 for a change of the contact temperature in the range of 15°C to 60°C.

11. (Amended) The image-forming process according to claim 9, wherein the surface layer is composed of a non-monocrystalline material based on at least one of silicon and carbon, and

wherein a range of variation of the kinetic frictional deviation factor is not more than 0.01 for a change of the contact temperature in the range of 15°C to 60°C.

12. (Amended) The image-forming process according to claim 8, wherein a rate of change of a dark portion electrifying ability to a change in temperature of a surface of the photosensitive member is within $\pm 2\%/\text{°C}$.

13. (Amended) The image-forming process according to claim 12, wherein a characteristic energy in an exponential energy distribution of a tail level of a valence band is in the range of 50 to 70 meV.